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A PARTIAL REPLICATION AND EXTENSION OF THE MOBLEY, HORNER AND H--ETC(U)
JAN 81 D G SPENCER, R M STEERS, R T MOWDAY N00014-81-K-0026

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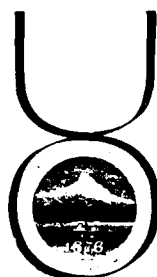
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A Partial Replication and Extension of the
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Employee Turnover.

10 Daniel G. Spencer University of Kansas
Richard M. Steers University of Oregon
Richard T. Mowday University of Oregon

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Principal Investigators

Richard M. Steers, University of Oregon
Richard T. Mowday, University of Oregon
Lyman W. Porter, University of California, Irvine

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20. Abstract (continued)

1) extent of employee search for alternatives and 2) results of employee search for alternatives. Results of the extension indicated that the two additional intermediate linkages did not fully integrate into the model as hypothesized by Mobley (1977).

Abstract

A Partial Replication and Extension of the Mobley, Horner, and Hollingsworth Model of Employee Turnover

A partial replication of Mobley, Horner, and Hollingsworth's turnover model was undertaken with a sample of classified university employees. Intermediate linkages of the employee withdrawal decision process studied were job satisfaction, age, tenure, perception of job opportunities, thoughts of quitting, and intention to search. Results were substantially in agreement with that of Mobley, Horner, and Hollingsworth (1978). Extension of the turnover model was undertaken by measuring two linkages in the employee withdrawal decision suggested by Mobley (1977): 1) extent of employee search for alternatives and 2) results of employee search for alternatives. Results of the extension indicated that the two additional intermediate linkages did not fully integrate into the model as hypothesized by Mobley (1977).

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A Partial Replication and Extension of the Mobley, Horner,
and Hollingsworth Model of Employee Turnover¹

The tenuous relationship between attitude and behavior has been well documented (cf., Deutscher, 1973). A parallel can be drawn to the results of empirical research concerning the job satisfaction-turnover relationship which is consistently negative but consistently weak (Porter and Steers, 1973; Mobley, Griffeth, Hand and Meglino, 1979; Vroom, 1964). In an attempt to address this problem Mobley (1977) proposed a turnover decision process model that considered cognitive and behavioral phenomena that mediate the relationship between affective reaction to job and turnover. Subsequent investigation of a number of these intermediate linkages indicated that job satisfaction was strongly related to linkages that immediately followed this affective response and that turnover was strongly predicted by the linkage that immediately preceded this employee behavior (Mobley, Horner, and Hollingsworth, 1978). Later, the empirical validity of the Mobley et. al (1978) model was given general support by the findings of Miller, Katerberg, and Hulin (1979), Mowday, Koberg, and McArthur (1980), and Coverdale and Terborg (1980). Miller et al. conclude their report by stating: "Mobley and his associates have contributed a model that is conceptually rich and, in simplified form, has a strong empirical basis. Continued research employing their model with diverse samples and measurement procedures promises to contribute to our understanding of organizational withdrawal processes" (p. 516).

It is the intent of the research reported here to add to this growing body of literature by 1) partially replicating the Mobley et al. (1978) research and 2) studying several additional intermediate linkages

in the turnover decision process. This research differs from that previously undertaken in that anonymity of subjects is maintained, therefore, the replication is partial in that employee turnover was not included in the study. Although relationships between study variables and employee turnover were not investigated, turnover intent (a variable included in this study) is generally regarded as being one of the best predictors of employee turnover (Kraut, 1975; Marsh & Mannari, 1977, Mobley et al., 1978; Newman, 1974; Steers, 1977; Waters, Roach & Waters, 1976). It was expected that more accurate data would be collected on search behavior by maintaining employee anonymity.

The partial replication of Mobley et al.'s (1978) research involved the measurement of overall satisfaction, age, tenure, and the intermediate linkages: probability of finding acceptable alternatives, thinking of quitting, intention to search, and intention to leave. The last three intermediate linkages in this sequence were treated as successive dependent variables. It was hypothesized that only those variables immediately preceding each of these linkages would have the strongest standardized regression coefficients. Such an analysis allowed determination of the extent to which there was a direct link between job satisfaction and intent to leave or the extent to which this relationship was indirect through each intermediate linkage in the turnover decision process. This methodology has been criticized by Miller et al. (1979) primarily on the basis of non-independence of predictors and the use of unstable single-item measures. Miller et al., propose a strategy to minimize these problems. This methodology was not utilized by this study due to the fact that it is predicated on the use of employee turnover data.

The extension of Mobley et al.'s (1978) research involved including several additional intermediate linkages into the current study: 1) extent of employee search for alternatives, and 2) results of employee search for alternatives. Each of these variables was constructed to represent the two intermediate linkages "search for alternatives" and "evaluation of alternatives" in Mobley's (1977) employee turnover decision process. These linkages are seen to intercede between intention to search for alternatives and intention to leave.

METHOD

Sample and Research Site

This study was carried out among a sample of 305 full time classified employees of a large west coast university. A total of 450 blue collar, secretarial, clerical, professional, and administrative employees were sampled--68% of which voluntarily participated in the study. Data were collected on university time, with questionnaires administered by the author to subjects in survey rooms at key locations around the university campus.

Measures

Overall satisfaction. The measure of overall satisfaction was the 18 item Brayfield and Rothe (1951) Index of Job Satisfaction. The scaling format consisted of a 7-point Likert scale with responses ranging from "strongly disagree" to "strongly agree". (coefficient alpha = .93).

Age-tenure. Age and tenure Z scores were summed to create a composite summary variable.

Intermediate linkages. All intermediate linkages in the turnover decision process were measured by asking questions with responses ranging from "strongly disagree" to "strongly agree" on a 7-point Likert scale. Probability of finding acceptable alternatives was measured by asking subjects to respond to: "There are many excellent opportunities at the the present time to find a job in a different organization that is acceptable to me." Thinking of quitting was measured by asking subjects to respond to: "I am thinking about quitting my job." Intention to search was measured by asking subjects to respond to: "I intend to start searching for an alternative job in another organization." Extent of search was measured by asking subjects to respond to: "At the present time I am actively searching for a job in another organization." Results of search was measured by asking subjects to respond to: "The results of my search for a new job are encouraging (If not searching please leave blank)." Finally, a measure of intent to leave was constructed by forming a composite of two questions asking for an employee's intent to leave and intent to remain. (coefficient alpha = .85).

RESULTS

Means, and standard deviations, and correlations among study variables are presented in Table 1. The pattern of intercorrelations are similar to those reported by Mobley et al. (1978), Miller et al. (1979), Coverdale and Terborg (1980), and Mowday et al. (1980).

Insert Table 1 about here

Replication

The multiple regressions for intent to quit, intent to search, and thinking of quitting are summarized in Table 2. Included in Table 2 for comparative purposes are Mobley et al.'s (1978) multiple regressions for each of these successive dependent variables. For each dependent variable, the standard partial regression coefficients for all preceding variables are reported. The magnitude and significance of each independent variable indicates the extent to which each independent variable has a direct effect on the dependent variable while holding all other independent variables constant. When the standardized regression coefficients for a given independent variable are examined across all equations a greater understanding of the indirect affects of that variable are gained. Mobley et al.'s (1978) results show that the relationship between job satisfaction and turnover was not a direct link but a relationship that was indirect through other variables (see Table 2). Mobley et al.'s (1978) findings were substantially replicated in the current study (see Table 2). The pattern of relationships in both studies were very similar. The only exceptions were the standardized regression coefficients for intent to search and thinking of quitting on intent to leave. In the Mobley et. al study intent to search had the only significant coefficient with intent to leave. The current study indicates that both intent to search and thinking of quitting had significant and strong coefficients with intent to leave.

Insert Table 2 about here

Extension

Results of the extension of the turnover process model are located in Table 3. With respect to the extension of the model by extent of search and results of search, several conclusions were drawn. The pattern of standardized regression coefficients for extent of search as the dependent variable indicated that, as would be predicted by Mobley and associates, intent to search was the most significant predictor. Standardized regression coefficients for Results of Search as the dependent variable indicated several strong predictors (Thinking of Quitting and Extent of Search) of which Extent of Search was the strongest predictor. The significant negative coefficient for Intent to Search implies that as the results of search become more favorable the intent to search becomes weaker. The significant and positive coefficient for Probability of Finding an Acceptable Alternative indicates the presence of a feedback loop between Results of Search and this intermediate linkage. The more favorable the results of a search for alternative employment the greater the perceived probability of finding acceptable alternative employment.

Insert Table 3 about here

Finally, the pattern of standardized regression coefficients for Intent to Leave was similar to previous findings with the exception that Intent to Search was no longer a significant predictor of intent to leave. This finding might be expected due to the fact that all subjects in this particular analysis indicated that they were currently engaged in search for alternative employment. Both regression coefficients for Extent of Search and Results of Search exhibited no direct relationship

with intent to leave. These findings, particularly the low coefficient of Results of Search, are not consonant with the predictions of Mobley (1977). Perhaps a nonsignificant relationship was found because other components of the turnover decision process were not considered such as "comparison of alternatives versus present job" which was hypothesized by Mobley to link evaluation of alternatives and intent to leave.

DISCUSSION

Results indicated that the pattern of relationships found by Mobley et al. (1978) have been substantially replicated in the current study, that is, that the relationship between job satisfaction and intent to leave was indirect through a number of intermediate linkages in the withdrawal decision process.

The extension of Mobley et al.'s turnover decision process model yielded results indicating that the two linkages Extent of Search and Results of Search, for the most part, fit the model with respect to preceding linkages but do not fit the model with respect to the linkage that they precede, i.e., intent to leave. Extent of Search and Results of Search exhibited no significant relationship with intent to leave. These results indicate that these two variables may not have a direct relationship with intent to leave and that the relationship may be one that is indirect through other linkages involving the comparison of alternatives versus present job.

Future research should incorporate tests of the model in different samples and utilize different measurement techniques. Also, further extension of the turnover process model, to incorporate as yet unstudied components, should yield increased understanding concerning the cognitive and behavioral phenomena that mediate the relationship between job satisfaction and turnover.

FOOTNOTES

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REFERENCES

- Brayfield, A. A. and Rothe, H. F. An index of job satisfaction.
Journal of Applied Psychology, 1951, 35, 307-311.
- Coverdale, S.H., and Terborg, J.R. A re-examination of the Mobley,
Horner & Hollingsworth model of turnover: A useful replication.
Paper presented at the meeting of the Academy of Management, Detroit,
August 1980.
- Deutscher, I. What we say/what we do: Sentiments and acts. Glenview:
Scott, Foresman and Co., 1973.
- Kraut, Allen I. Predicting turnover of employees from measured job
attitudes. Organizational Behavior and Human Performance, 1975,
13, 233-243.
- Marsh, R. and Mannari, H. Organizational commitment and turnover: A
predictive study. Administrative Science Quarterly, 1977, 22,
57-75.
- Miller, H. E., Katerberg, R., and Hulin, C. L. Evaluation of the Mobley,
Horner, and Hollingsworth Model of Employee Turnover, Journal of
Applied Psychology, 1979, 64, 509-517.
- Mobley, W. H. Intermediate linkages in the relationship between job
satisfaction and employee turnover. Journal of Applied Psychology,
1977, 62, 237-240.
- Mobley, W. H., Horner, S. O., and Hollingsworth, A.T. An evaluation of
precursors of hospital employee turnover. Journal of Applied
Psychology, 1978, 63, 408-414.
- Mobley, W. H., Griffeth, R. W., Hand, H. H., and Meglino, B. M. Review
and conceptual analysis of the employee turnover process. Psychological
Bulletin, 1979, 86, 493-522.

Mowday, R.T., Koberg, C.S., McArthur, A.W. The psychology of the withdrawal process: A cross-validation of Mobely's intermediate linkages model of turnover. Paper presented at the meeting of the Academy of Management, Detroit, August 1980.

Newman, J.E. Predicting absenteeism and turnover: A field comparison of Fishbein's model and traditional job attitude measures. Journal of Applied Psychology, 1974, 59, 610-615.

Porter, L. W., and Steers, R. M. Organizational, work, and personal factors in employee turnover and absenteeism. Psychological Bulletin, 1973, 80, 151-176.

Steers, R. M., Antecedents and outcomes of organizational commitment. Administrative Science Quarterly, 1977, 22, 46-56.

Vroom, V. Work and Motivation. New York: Wiley, 1964.

Waters, L. K., Roach, D., and Waters, C.W. Estimate of future tenure, satisfaction and geographical variables as predictors of termination. Personnel Psychology, 1976, 29, 57-60.

Table 1
Means, Standard Deviations, and
Correlation Matrix of Study Variables

Variable	M	SD	1	2	3	4	5	6	7	8	9
1. Tenure	3.8	1.7	--								
2. Age	4.6	2.4	.60	--							
3. Age-Tenure			.88	.90	--						
4. Overall satisfaction	5.7	1.2	.21	.25	.26	--					
5. Probability of finding acceptable alternative	3.4	2.0	-.09	-.12	-.12	.07	--				
6. Thinking of quitting	3.1	2.2	-.19	-.35	-.31	-.48	.18	--			
7. Intent to search	3.4	2.2	-.33	-.47	-.45	-.50	.16	.66	--		
8. Extent of search	5.2	1.8	-.20	-.32	-.28	-.41	.16	.60	.67	--	
9. Results of search	4.4	2.0	-.31	-.41	-.40	-.03	.51	.45	.20	.49	--
10. Intent to quit	3.4	2.1	-.35	-.53	-.50	-.52	.15	.76	.76	.57	.38

N = 305

* $p < .05$ at $r = .11$ (two tailed test)

** $p < .01$ at $r = .15$ (two tailed test)

Note. Extent of search and Results of search includes only those subjects who indicated they were currently engaged in job search, $N = 83$.

Table 2

Standardized Regression Coefficients and Multiple Correlations
for Mobley, Horner, and Hollingsworth's (1978) Study of Hospital Employees
and for the Current Replication of that Study Utilizing University Employees

Variable	Mobley et al. Study			Current Replication		
	Intent to leave	Intent to search	Thinking of quitting	Intent to leave	Intent to search	Thinking of quitting
Intent to search	.56**			.38**		
Thinking of quitting	.10	.44**		.42**	.49**	
Probability of finding acceptable alternative	.05	.05	.13*	-.00	.05	.18**
Overall Satisfaction	-.10	-.25**	-.54**	-.08*	-.20**	-.45**
Age-Tenure	-.12	-.17	-.03	-.17**	-.23**	-.18**
R	.75**	.69**	.56**	.86**	.73**	.55**

Note: Mobley et al. found a correlation of $r = .49$ between intent to leave and actual turnover

N = 23 (Mobley et al. study); N = 280 (current replication)

*p < .05

**p < .01

Table 3

Standardized Regression Coefficients and Multiple Correlations
for the Extended Turnover Decision Process Model

Variable	Intent to leave	Results of Search	Extent of Search	Intent to Search	Thinking of Quitting
Results of search	.04				
Extent of search	.05	.41**			
Intent to search	.18	-.28	.53**		
Thinking of quitting	.55**	.38**	-.04	.50**	
Probability of finding acceptable alternative	-.04	.31**	.14	-.08	.29**
Overall satisfaction	-.10	.09	.07	-.26*	-.37**
Age-Tenure	-.18	-.11	-.37**	-.04	-.19
R	.85**	.73**	.69**	.66**	.53**

N = 83

*p < .05

**p < .01

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School of Organization
and Management
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New Haven, CT 06520

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Westinghouse National Issues
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LIST 15 (Continued)

Dr. Larry Cummings
University of Wisconsin-Madison
Graduate School of Business
Center for the Study of
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1155 Observatory Drive
Madison, WI 53706

Dr. John P. French, Jr.
University of Michigan
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University of Oregon
Eugene, OR 97403

Dr. Joseph Olmstead
Human Resources Research
Organization
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Alexandria, VA 22314

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Dr. Thomas M. Ostrom
The Ohio State University
Department of Psychology
116E Stadium
404C West 17th Avenue
Columbus, OH 43210

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Temple University, The Merit Center
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